

Applicants: Yannick Boulis  
Serial No.: Unassigned  
Filing Date: Herewith  
Docket No.: 1325-6 PCT/US  
Page 2

**AMENDMENTS TO THE SPECIFICATION:**

**On page 1, please delete the paragraph beginning at line 5 and ending at line 21, and replace it with the following new headings and paragraphs:**

This application is a U.S. National Phase Application of International Application No. PCT/IB2004/003420 filed on October 19, 2004. The specification of International Application No. PCT/IB2004/003420 is hereby incorporated by reference.

This application asserts priority to European Application No. EP 03292605.7 filed on October 20, 2003. The specification of European Application No. EP 03292605.7 is hereby incorporated by reference.

**Field of the Invention**

The present invention relates to a process for the separation and isolation of biologically active substances from dairy by-product or secondary waste flows.

**Background of the Invention**

Many dairy industrial processes, such as in the manufacture of butter and butter concentrates, caseins and caseinates, cheeses, creams, ultra-fresh dairy products, and the like, generate significant amounts of currently unavoidable by-products or waste products. These products must be handled according to legislation that is becoming ever stricter, which often implies a non-negligible cost. One way of recovering that extra cost that the industrialist has to pay, is by attempting to exploit or to find some value added material within the waste or by-product. Unfortunately, such cases are relatively rare on the whole, since the economics of any extra processing steps necessary to retrieve the material are generally unfavorable with respect to the value that can be gained from such material. This is especially true of the food and dairy industry, where industrial costs have to be kept as low as possible, in order to maintain economic viability of the general food production processes.

Applicants: Yannick Boulis  
Serial No.: Unassigned  
Filing Date: Herewith  
Docket No.: 1325-6 PCT/US  
Page 3

**On page 3, before the paragraph beginning at line 15, please insert the following new heading:**

**Summary of the Invention**

**On page 3, before the paragraph beginning at line 25, please insert the following new heading:**

**Detailed Description of the Invention**

**On page 9, line 1, please delete the heading “Detailed Description of Preferred Embodiments” and insert the following new heading:**

**Examples**

**On page 9, line 7, please delete the word “Examples”**